POWER FEED INSTALLATION
Model M-9114 Table Feed
Bridgeport Series II Mill
Replaces Bridgeport 6F Electronic Feed

REFERENCE DRAWINGS ENCLOSED
- NA-5444  Bevel Gear Installation
- NB-57485  Power Feed Installation
- ND-6292  Type 150 Servo Drive
- ND-6293  Type 140 Servo Drive
- 0800-80001  Servo Power Feed Operation

PREPARATION

Step 1: Move the table to the extreme left.

Step 2: Remove the Bridgeport power feed from the right end of the machine, including the coupling to the lead screw. Save the cap screws that attached the feed to the table.

Step 3: Remove and retain the following parts from the Bridgeport 6F feed: dial, dial nut, handcrank, spring, spring seat washer, and handcrank sleeve. Remove the coolant tray.

POWER FEED INSTALLATION

Step 1: Slide the shaft extension onto the lead screw shaft. Using the existing hole on the shaft extension as a pilot hole, drill 3/16 diameter hole through both parts while pushing shaft extension against the lead screw.

Step 2: Install the 3/16 diameter roll pin flush. File if necessary to remove raised portion of roll pin.

Step 3: Install seal #57450 onto the shaft extension.

Step 4: Replace the coolant tray. Slide the bearing race onto the shaft extension. Slide the table feed assembly over the shaft and bolt to the coolant tray.

BEVEL GEAR INSTALLATION

Step 1: Install the Woodruff key.

Step 2: Follow drawing NA-5444 for installation of the bevel gear. Adjust for proper gear backlash.

DIAL AND HANDCRANK INSTALLATION

Step 1: After getting the proper backlash, the dial should be adjusted to obtain .005” spacing from the face of the power feed. This is important in order to keep chips from entering the gear train. Plastic and brass washers are provided for this. Shim as required.

Step 2: Add the dial nut. In the following sequence, slide on the clutch, the existing sleeve, the existing spring, and the existing handcrank.
Step 3: Push to engage the handcrank with the clutch and turn to move the table. The lead screw should turn freely without binding.

*IF:* If required, you can adjust the alignment by loosening the four feed holddown screws and re-tightening when no binding is experienced.

*Step 4:* Use 3/16 drill to transfer the two roll pin holes 3/8” deep into the coolant tray. Add 3/16 x 1” roll pins.

**LIMIT SWITCH INSTALLATION**

*Step 1:* Remove the standard table stop pieces and install the table stop pieces furnished. Put the standard stops back in a position to prevent feed stops from being set beyond extreme table travel.

*Step 2:* Install the limit switch using two 3/8-16 x 1-1/4” long socket head cap screws.

☐ **NOTE**  *For proper operation, the electrical limit switch should be engaged .4 inch before the mechanical stop to allow for coasting of the table. The T-stops are often not symmetrical and may need to be ground to obtain proper operation.*

*Step 4:* Put the cable clamp on the cable and secure to the right-hand chip scraper screw.

**OPERATION**

See separate *Servo Power Feed Operation* sheet. Plug the table feed into a source of 120 volt, 50 or 60 cycle power.

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**WARNINGS**

*Check hand crank clearances before operation.*

Clearances between the surfaces of the hand crank and the non-moving parts of the equipment on which the hand crank is installed must be at least one-fourth inch (1/4”) to prevent injury. Modification of existing hand crank or replacement may be required.

*Do not operate* without proper clearance!

Prevent contact during fast traverses.

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SERVO PRODUCTS COMPANY
Web: www.servoproductsco.com

CALIFORNIA BRANCH
14254 Valley Blvd., Unit A
City of Industry, CA 91746
Ph. 626.961.7800  Fax 626.961.2444

HEADQUARTERS
34940 Lakeland Blvd.
Eastlake, OH 44095
Ph. 440.942.9999  Fax 440.942-9100

FLORIDA BRANCH
8950 131st Ave. N.
Largo, FL 33773
Ph. 727.585.8555  Fax 727.585.6555
**STEP 1**  
PREPARATION

**STEP 2**  
SHIMMING BEVEL GEAR

- ADD SHIMS PROVIDED  
  1/32 THICK ARE SOLID  
  1/64 THICK ARE LAMINATED  
  .002/LAMINATION

- INSTALL HANDCRANK.

- PUSH BEVEL GEAR AGAINST SHIMS.

- MARK HOUSING AND BEVEL GEAR WITH PENCIL TO CHECK BACKLASH.

  - 015/025 (THIS IS NOT THE READING ON THE DIAL)

  - ROTATE GEAR FROM SIDE TO SIDE. REMOVE OR ADD SHIMS AS REQUIRED TO OBTAIN 015/025 BACKLASH.

- TIGHTEN NUT.

**CAUTION:** IF BACKLASH IS NOT PROPERLY SET BEFORE TURNING UNIT ON, BEVEL GEAR MAY BE DESTROYED.

**STEP 3**  
DOUBLE CHECK OF SHIMMING

- LOosen SETSCREW

- WITH POWER FEED IN NEUTRAL POSITION, TURN HANDCRANK. IF EXCESSIVE GEAR NOISE OR BINDING OCCURS, SHIMS NEED TO BE ADDED. WHEN ADDING SHIMS, REPEAT STEPS 1 AND 2.

- CONTROL HANDLE @ NEUTRAL POSITION

**STEP 4**  
LUBRICATION

- INSTALL KEY

- SEAL

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**BEVEL GEAR INSTALLATION**

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NOTES: 1. REVIEW ALL INSTALLATION INSTRUCTIONS AND POWER FEED